

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection**

N743641535

FACILITY: Shook Asphalt Co. Inc.		SRN / ID: N7436
LOCATION: 8281 SNOWS LAKE RD., GREENVILLE		DISTRICT: Grand Rapids
CITY: GREENVILLE		COUNTY: MONTCALM
CONTACT: Tricia Eyer, Secretary		ACTIVITY DATE: 09/14/2017
STAFF: Adam Shaffer	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled unannounced inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Adam Shaffer (AS) arrived at the Shook Asphalt Company, Inc. (SA) facility at 10:33 am on September 14, 2017 to complete a scheduled, unannounced inspection.

Facility Description

Prior to entering the facility on September 14, 2017, offsite odor and visible emission observations were completed. Weather conditions at the time of the inspection were overcast skies, low 60's F with winds at 0-5mph. No visible emissions or odors were noted, though the weather conditions were calm and the facility wasn't mixing asphalt upon arrival. However, several times during the September 14, 2017 inspection asphalt production was completed. During that time steam was observed leaving the stack mixed with what appeared to be particulate.

Upon arrival, AQD staff AS met with Ms. Tricia Eyer, Secretary. Ms. Eyer initially stated that due to technical difficulties with their computer, no records were available at the time. Due to these circumstances, a partial inspection was completed of site operations, and AQD staff AS returned on September 19, 2017 to complete the remaining portions of the inspection including obtaining records and gathering information. Requested records were discussed and provided by Ms. Eyer and questions of onsite operations were answered by Tom, Plant Operator. The layout of the facility included an office building, a control building and all associated asphalt plant processing equipment.

SA is a Hot Mix Batch Asphalt Plant that is in operation with one Opt Out Permit to Install (PTI) No. 37-05A and is a synthetic minor source for hazardous air pollutants (HAPs). The facility is also subject to New Source Performance Standards (NSPS) Subparts A and I. Conditions related to these standards will be discussed further in this report.

EUHMAPLANT

This emission unit is for the hot mix asphalt (HMA) facility including the 150 tons per hour batch plant and the fabric filter dust collector.

Various pollutant emission limits are identified for this emission unit and are provided below.

Pollutant	Limit	Time Period
PM	0.04 gr/dscf	Test Protocol ³
PM	0.065 lb per ton ²	Test Protocol ³
CO	0.1980 lb per ton ²	1 hour
Lead	2.0 x 10 ⁻⁶ lb per ton ¹²	Test Protocol ³
Benzene	0.001 lb per ton ²	Test Protocol ³
Toluene	0.006 lb per ton ²	Test Protocol ³
Ethylbenzene	0.001 lb per ton ²	Test Protocol ³

Xylene	0.001 lb per ton ²	Test Protocol ³
Naphthalene	0.001 lb per ton ²	Test Protocol ³
Formaldehyde	0.01 lb per ton ²	Test Protocol ³
Acrolein	0.0005 lb per ton ²	Test Protocol ³
Arsenic	1.0 x 10 ⁻⁶ lb per ton ²	Test Protocol ³
Nickel	1.0 x 10 ⁻⁴ lb per ton ²	Test Protocol ³
Manganese	5 x 10 ⁻⁵ lb per ton ²	Test Protocol ³
¹ Annual limits based on 100,000 tons HMA paving material production. ² Pounds pollutant per ton of HMA paving material produced. ³ Test Protocol shall specify averaging time.		

All emission limits for all criteria pollutants and HAPs, except for the hourly limit for carbon monoxide (CO), are based on the testing protocol. The most recent stack test was completed in 2006 for particulate matter (PM). Review of the stack test verified that SA had met the 0.04 gr/dry standard cubic foot limit. Continued compliance with all emission limits previously mentioned is through continued satisfactory operation of the baghouse. Monthly and 12-month rolling total records were reviewed for all criteria pollutants and HAPs since August 2016. SA is keeping track of month and 12-month rolling totals for all permitted criteria pollutants and individual/Aggregate HAPs. Additionally, after further review all individual and Aggregate HAP 12-month rolling totals are well within their permitted limits.

During the inspection, it was stated by SA staff that they only burn natural gas and do not use any asbestos tailings or waste materials containing asbestos in their asphalt. Additionally, SA does not use any recycled asphalt materials (RAP), only virgin aggregate.

Per Special Condition (SC) 1.5 and 1.6, SA is not allowed to process more than 100,000 tons of HMA paving materials per a 12-month rolling time period and no more than 150 tons of HMA paving materials per hour determined by dividing the total daily production by the hours of operations. Records of the 12-month rolling totals were requested and reviewed. As of August 2017, the 12-month rolling total of HMA paving materials produced is 10,955.75 tons. Previous 12-month rolling totals observed back to August 2016 were reviewed and concluded to be within the permitted limit. Daily production totals of HMA paving materials were reviewed for the 2017 paving season. The highest daily total observed was 100.5 tons of HMA paving materials on September 6, 2017. Based on this, SA appears to be well within their permitted daily production totals of HMA paving materials.

The fugitive dust control plan (Appendix A) and the Preventative Maintenance Program for the Fabric Filter Dust Collector (Appendix B) appeared to be implemented and will be discussed in more detail further in this report. SA staff stated that the drum mix burners had been fine tuned for proper burner operation and performance to control CO emissions. At the time of the inspection the pressure drop gauge located in the control room for the fabric filter dust collector appeared to be operating properly and read 1.0 inches of water column, which is within the permitted limit for satisfactory operation.

Since the last inspection CO monitoring events were completed in September 2016 and in June 2017. CO monitoring was concluded to have not been completed upon the startup of the 2017 paving season which is a violation of SC 1.16. Additionally, AQD staff AS explained to SA staff the items needed for a complete CO monitoring event as only four readings were done when at least eight readings are required over a total time period of at least thirty minutes or longer.

Records of maintenance activities were requested and reviewed for the 2016 and 2017 paving season. Minor changes were noted and recommended for future records of maintenance logs. It was concluded by AQD staff

AS that SA is adequately keeping track of all maintenance records for the baghouse.

Per SC.1.22, SA shall keep track of the daily virgin aggregate feed rate, asphalt paving material product temperature, information sufficient to identify all components of the asphalt paving material mixture and times each new mix is started to be produced. Daily aggregate feed rate records and material product temperatures for the 2017 paving season were requested and provided. After further review, SA appears to be adequately keeping track of the daily aggregate feed rates and material product temperatures.

Two different types of asphalt mixes are produced at the SA facility and they are top (finer) mixture and a base (contains larger stone) mixture. It was noted in the records provided that during the 2017 paving season only the top mixture has been produced thus far. The base mixture appeared to be a mixture produced later in the paving season. It was discussed and concluded by SA staff that per each batch (2000 lbs) of the top mixture, the components consist of 100 lbs of liquid asphalt, 15% pea stone, 65% crushed dirt, and 20% crushed dust. SA staff stated that this makeup stays consistent. A QD staff AS discussed further with SA staff proper recordkeeping if SA starts to change their asphalt mixture throughout the day.

One stack is listed in association with this emission unit and was observed during the inspection. EUYARD

This emission unit is for the fugitive dust sources including: plant roadways, plant yard, material storage piles, and material handling operations (excluding cold feed aggregate bins).

Appendix A – Fugitive Dust Control Plan

Records were requested and reviewed for the 2017 paving season. Minor changes were noted to SA staff for future recordkeeping.

- SA is keeping adequate records of all "mother nature" events where it rains at the facility. SA has applied brine/water to keep dust down a total of three times for the 2017 paving season; however, based on the records reviewed it appears to have been a relatively wet season and was concluded to be acceptable.
- Speed limits signs of 10 miles per hour were observed on site.
- Storage piles were observed on site and no fugitive dust was observed blowing from the piles though wind conditions were calm at the time of the inspection.
- Not all areas of the facility were paved; however, based on the conditions observed, SA appears to be managing roadways to limit fugitive emissions. Additionally, limited amount of track out from the facility was observed.
- Any aggregate spilled on roadways appeared to be adequately removed.
- Tarps or covers were observed on trucks leaving the facility with HMA paving materials.
- Areas leading up to and around the hoppers were observed to be relatively free of spillage from loading.
- During the inspection when the EUHMAPLANT was in operation two areas (a gap between the mixer and weight bucket, and beneath the baghouse) were noted to release what appeared to be a mixture of steam and fugitive emissions.

EUACTANKS

The vapor condensation and recovery system was observed and SA staff stated that it was operating properly.

FGFACILITY

As stated previously, SA is keeping adequate track of all individual and Aggregate HAPs, with 12-month rolling totals well within permitted limits.

Appendix B – Preventative Maintenance Program for the Fabric Filter Dust Collector

The pressure drop gauge reading as previously stated was 1.0 inches of water column at the time of the inspection. Based on EUHMAPLANT SC.1.10 this is considered satisfactorily. Daily pressure drop reading records were requested for the 2017 paving season and reviewed. The pressure drop reading has stayed relatively consistent at 1.0 inches of water column and is concluded to be acceptable. A high temperature sensor and alarm system was stated by SA staff to be in place with a setpoint at 390°F at which point the burner for the plant shuts down. SA is keeping track of all maintenance activities. At the time of the inspection it was concluded that a black light inspection had not been completed at the start of the 2017 paving season. This is a violation of SC 1.21 and Appendix B. SA staff stated that 10 bags are on site for replacement. All remaining items for the Preventative Maintenance Program were discussed at length with minor changes identified.

Additional observations

- What appeared to be a crusher was observed in operation on site and was stated by SA staff to be owned by Mr. Shook. From previous inspections this piece of equipment has been in place since the early 1960s. Based on the age, this piece of equipment is exempt from permitting and New Source Performance Standards (NSPS).

Conclusion

A final discussion was completed with AQD staff AS and Ms. Eyer. The submittal of the 2017 MAERS Report by SA was discussed at length. Based on the review of the records provided and the facility walk through, SA is not in compliance with Opt Out PTI No. 37-05A. A violation notice (VN) will be sent.

NAME Adam E. Smith

DATE 09/21/17

SUPERVISOR [Signature]